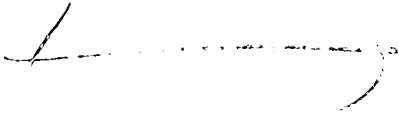


CLAIMS

I claim:

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1. A data transfer method comprising steps of
- (a) examining a TV video signal, comprising electromagnetic (EM) waves distributed over time, for finding a time slot with a suitable EM wave transient rate;
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- (b) generating a data-carrying TV signal by inserting into said TV signal a hidden-from-viewer data signal in said time slot having said suitable EM waves transient rate; and
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- (c) transmitting said data-carrying TV signal to a TV and a data receiver.
2. The data transfer method of claim 1 wherein:
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- said step (b) of generating a data-carrying TV signal by inserting into said TV signal a hidden-from-viewer data signal comprising a step of inserting a frequency-modulated (FM) data signal into said time slot having said suitable EM wave transient rate.
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3. The data transfer method of claim 1 wherein:
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- said step (b) of generating a data-carrying TV signal by inserting into said TV signal a hidden-from-viewer data signal comprising a step of inserting multiple frequency-modulated (MF) data signals into said time slot having said suitable EM wave transient rate.
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said step (b) of generating a data-carrying TV signal by inserting into said TV signal a hidden-from-viewer data signal comprising a step of inserting a compensated-amplitude (CA) modulated data signal into said time slot having said suitable EM wave transient rate.

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said step of inserting said data signal into said time slots employed for black level data transfer (BLDT) comprising a step of inserting a phase-modulated (PF) data signal into said time slot employed for BLDT.

said step of inserting said data signal into said time slots employed for black level data transfer (BLDT) comprising a step of inserting a multiple-phase-modulated (MP) data signal into said time slot employed for BLDT.

14. The data transfer method of claim 9 wherein:

said step of inserting said data signal into said time slots employed for black level data transfer (BLDT) comprising a step of inserting a modulated signal with compensated-format (CF) as data signal into said time slot employed for BLDT.

15. The data transfer method of claim 9 wherein:

said step of inserting said data signal into said time slots employed for black level data transfer (BLDT) comprising a step of inserting a compensated amplitude (CA) modulated data signal into said time slot employed for BLDT.

16. The data transfer method of claim 9 wherein:

said step of inserting said data signal into said time slots employed for black level data transfer (BLDT) comprising a step of inserting a differential amplitude (DA)-modulated data signal into said time slot employed for BLDT.

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said step of inserting said data signal into said time slots employed for white level data transfer (WLDT) comprising a step of inserting a multiple-phase-modulated (MP) data signal into said time slot employed for WLDT.

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said step of inserting said data signal into said time slots employed for blank level data transfer (KLDT) comprising a step of inserting a frequency-modulated (FM) data signal into said time slot employed for KLDT.

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said step of inserting said data signal into said time slots employed for blank level data transfer (KLDT) comprising a step of inserting a modulated signal with compensated-format (CF) as data signal into said time slot employed for KLDT.

30. The data transfer method of claim 25 wherein:

said step of inserting said data signal into said time slots employed for blank level data transfer (KLDT) comprising a step of inserting a compensated amplitude (CA) modulated data signal into said time slot employed for KLDT.

Time	Temperature	Pressure	Flow Rate	Concentration	Humidity	Wind Speed	Wind Direction	Cloud Cover	Visibility	Barometric Pressure	Relative Humidity	Dew Point	Heat Index	UV Index	Air Quality Index	Soil Temperature	Water Temperature	Groundwater Level	Seismic Activity	Other Data
00:00	25.0	1013.2	1.5	0.5	65	2.0	180	10	10	1013.2	65	18.0	75	1	50	15.0	10.0	1.0	0.0	
01:00	24.5	1013.1	1.5	0.5	64	2.0	180	10	10	1013.1	64	17.5	74	1	50	15.0	10.0	1.0	0.0	
02:00	24.0	1013.0	1.5	0.5	63	2.0	180	10	10	1013.0	63	17.0	73	1	50	15.0	10.0	1.0	0.0	
03:00	23.5	1012.9	1.5	0.5	62	2.0	180	10	10	1012.9	62	16.5	72	1	50	15.0	10.0	1.0	0.0	
04:00	23.0	1012.8	1.5	0.5	61	2.0	180	10	10	1012.8	61	16.0	71	1	50	15.0	10.0	1.0	0.0	
05:00	22.5	1012.7	1.5	0.5	60	2.0	180	10	10	1012.7	60	15.5	70	1	50	15.0	10.0	1.0	0.0	
06:00	22.0	1012.6	1.5	0.5	59	2.0	180	10	10	1012.6	59	15.0	69	1	50	15.0	10.0	1.0	0.0	
07:00	21.5	1012.5	1.5	0.5	58	2.0	180	10	10	1012.5	58	14.5	68	1	50	15.0	10.0	1.0	0.0	
08:00	21.0	1012.4	1.5	0.5	57	2.0	180	10	10	1012.4	57	14.0	67	1	50	15.0	10.0	1.0	0.0	
09:00	20.5	1012.3	1.5	0.5	56	2.0	180	10	10	1012.3	56	13.5	66	1	50	15.0	10.0	1.0	0.0	
10:00	20.0	1012.2	1.5	0.5	55	2.0	180	10	10	1012.2	55	13.0	65	1	50	15.0	10.0	1.0	0.0	
11:00	19.5	1012.1	1.5	0.5	54	2.0	180	10	10	1012.1	54	12.5	64	1	50	15.0	10.0	1.0	0.0	
12:00	19.0	1012.0	1.5	0.5	53	2.0	180	10	10	1012.0	53	12.0	63	1	50	15.0	10.0	1.0	0.0	
13:00	18.5	1011.9	1.5	0.5	52	2.0	180	10	10	1011.9	52	11.5	62	1	50	15.0	10.0	1.0	0.0	
14:00	18.0	1011.8	1.5	0.5	51	2.0	180	10	10	1011.8	51	11.0	61	1	50	15.0	10.0	1.0	0.0	
15:00	17.5	1011.7	1.5	0.5	50	2.0	180	10	10	1011.7	50	10.5	60	1	50	15.0	10.0	1.0	0.0	
16:00	17.0	1011.6	1.5	0.5	49	2.0	180	10	10	1011.6	49	10.0	59	1	50	15.0	10.0	1.0	0.0	
17:00	16.5	1011.5	1.5	0.5	48	2.0	180	10	10	1011.5	48	9.5	58	1	50	15.0	10.0	1.0	0.0	
18:00	16.0	1011.4	1.5	0.5	47	2.0	180	10	10	1011.4	47	9.0	57	1	50	15.0	10.0	1.0	0.0	
19:00	15.5	1011.3	1.5	0.5	46	2.0	180	10	10	1011.3	46	8.5	56	1	50	15.0	10.0	1.0	0.	

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said step (a) of rearranging said TV signal into said non-viewer-interfering data-carrying TV signal comprising a step of arranging said TV signal according to a color table data transfer (CTDT) method by best fitting a TV pixel signal to a color in one of at least two color tables for representing a binary level of a data according to a color table employed for encoding said binary level of said data into said TV pixel signal.

- 5 *Al Paul*
35. The data transfer method of claim 33 wherein:
- said step (a) of rearranging said TV signal into said non-viewer-interfering data-carrying TV signal comprising a step of arranging said TV signal according to a predefined object data transfer (PODT) method by prearranging a TV pixel signal for showing a designated object and employing said TV pixel signal for transmitting a data signal.
- 10 36. The data transfer method of claim 33 wherein:
- said step (a) of rearranging said TV signal into said non-viewer-interfering data-carrying TV signal comprising a step of arranging said TV signal according to a small object data transfer (SODT) method by detecting a TV pixel signal for showing a small object and employing said TV pixel signal for transmitting a data signal.
- 15 37. The data transfer method of claim 33 wherein:
- said step (a) of rearranging said TV signal into said non-viewer-interfering data-carrying TV signal comprising a step of arranging said TV signal according to a dedicated object data transfer (DODT) method by designating a TV pixel signal for showing a dedicated object and employing said TV pixel signal for transmitting a data signal.
- 20 38. The data transfer method of claim 33 wherein:
- said step (a) of rearranging said TV signal into said non-viewer-interfering data-carrying TV signal comprising a step of arranging said TV signal according to an invisible frame data transfer (IFDT) method by determining a TV pixel signal in an invisible frame and employing said TV pixel signal for transmitting a data signal.
- 25 39. The data transfer method of claim 33 wherein:
- said step (a) of rearranging said TV signal into said non-viewer-interfering data-carrying TV signal comprising a step of arranging said TV signal according to a small object data transfer (SODT) method by detecting a TV pixel signal for showing a small object and employing said TV pixel signal for transmitting a data signal.
- 30 40. The data transfer method of claim 33 wherein:
- said step (a) of rearranging said TV signal into said non-viewer-interfering data-carrying TV signal comprising a step of arranging said TV signal according to a dedicated object data transfer (DODT) method by designating a TV pixel signal for showing a dedicated object and employing said TV pixel signal for transmitting a data signal.
- 35 41. The data transfer method of claim 33 wherein:
- said step (a) of rearranging said TV signal into said non-viewer-interfering data-carrying TV signal comprising a step of arranging said TV signal according to an invisible frame data transfer (IFDT) method by determining a TV pixel signal in an invisible frame and employing said TV pixel signal for transmitting a data signal.

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said step (a) of employing said TV pixel signal in said invisible frame for transmitting a data signal comprising a step of transmitting a modulated data signal with a compensated format (CF).

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a video game controller for allowing a video game player to control and play a video game on said video game system.

SECRET

49. A stock price update system comprising:
- a TV signal interface/decoding means for receiving a TV signal encoded with a data-signal comprising stock price data.